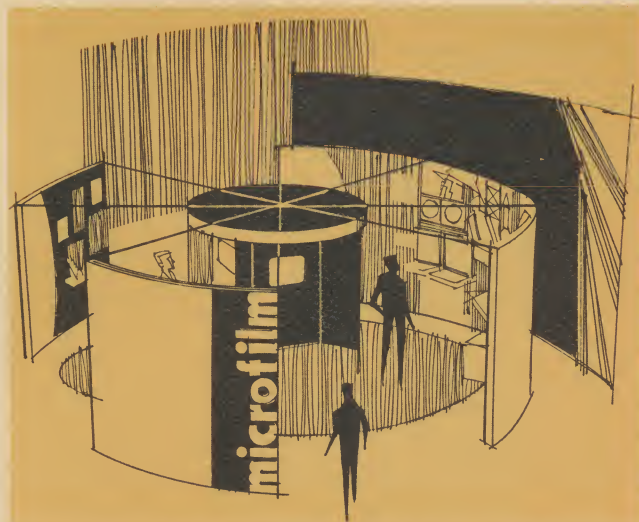


Micro-News Bulletin

PUBLISHED BY THE NATIONAL MICROFILM ASSOCIATION

MAY 1971 • NUMBER 11



An artist's concept of the exhibit NMA will donate to the Smithsonian Institution on May 20. (See page 7.) (Design by Art Designer's, Inc.)

EDUCATION FOR THE PUBLIC

Achievements: 1970 - 1971

EDUCATION FOR THE PROFESSION

NMA Establishes J. P. Eager Fund

The National Microfilm Association has established a scholarship fund, the John P. Eager Education Fund, to provide financial assistance for students pursuing studies in micrographics management and technology. The announcement was made by George H. Harmon, NMA President, and Van B. Phillips, Eastman Kodak Co., Assistant Vice-President and Manager, Marketing Operations, Fund Chairman.

Named for the late John P. Eager, who was coordinator, Micrographics Film and Equipment

(Continued on Page 7)

CONVENTION IN A CAPSULE

May 25-28 - *Infographics Update: 20th Annual Convention, National Microfilm Association, Sheraton-Park Hotel, Washington, D.C. - 26 Seminars; 9 General Papers; 123 exhibitors. Information: National Microfilm Association, Suite 1101, 8728 Colesville Road, Silver Spring, Maryland 20910 (Phone: 301-587-8444).*

GPO Holds Second Micropublishing Conference

Over 120 representatives of industry and government attended the second Government Printing Office Micropublishing Conference in Washington, D. C. on April, 28. These meetings have been convened by the Public Printer of the United States, Mr. A. N. Spence, II, to provide counsel to the GPO in making their titles available in microform.

The speakers included A. N. Spence, II; George H. Harmon, President of the National Microfilm Association; Mr. Robert Sullivan, representing the American Library Association; and George Bernstein, Chairman, Working Group, Science and Technology Micromedia Committee Executive Office of the President. (See Washington, page 5.) After the formal remarks, the attendees were allowed to express their views to representatives of GPO and the Micropublishing Advisory Group.

In answering a question posed by Carl Spaulding of the Council on Library Resources, who asked if GPO had a plan and schedule, Mr. Spence said that GPO had an accelerated schedule, but now has no definite set of dates for introducing titles in microform, and that there was no decision that there will be a microform package. GPO does have a plan. It will get the best thinking of the different interested groups before the Advisory Committee which will make recommendations to the Public Printer.

Mr. Spence also said that:

- (1) GPO would offer titles in both hard copy and microform.
- (2) There has been a definite failure of documents to do the job.

(Continued on Page 4)

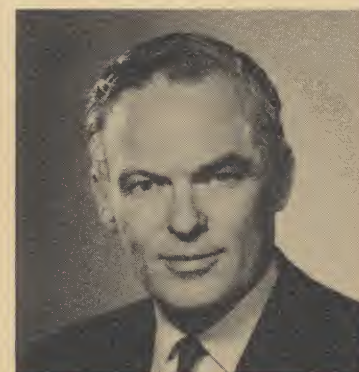
CONVENTION SPEAKERS



Hon. A. N. Spence, II, Public Printer of the United States, will address a general meeting on Friday, May 28 at 9:00 A.M.



Walter Cunningham, NASA, Apollo VII Astronaut, will be the Keynote Speaker on Tuesday, May, 25.



Dr. Kenneth G. McKay, Vice President, Engineering Dept., American Telephone & Telegraph Co., will be the Luncheon Speaker on Thursday, May 27.

**Richard C. Grimes of Westinghouse
Addressed William Penn Chapter**

A pioneer in microfilm, starting in the business in 1942, Mr. Richard C. Grimes, Manager of Corporate Records for Westinghouse Electric Corporation, gave attendees at the March 31 meeting an excellent presentation on his use of microfilm and paper for records management.

The centralized corporate holdings at Westinghouse, located in a limestone cave 220 feet underground, consist of 9,000,000 aperture cards, 62,000 film reels, numerous jackets and microfiche, and 190,000 cubic feet of paper.

Using a staff of 12, the group handles 130-150 requests for paper and 75-100 requests for microfilm records per day. Due to the excellent methods of storage for retrieval, most items are located in less than one minute.

Mr. Grimes stated that good quality diazo duplicate copies can be made from films produced in 1942.

... about the new

Micro-News Bulletin ...

The new Bulletin is a current-awareness publication prepared to assist in the continuing education of the membership.

***Today, according to Lord Bowden*,
"... education must not finish when a
man leaves his school or university, but
should continue the rest of his life."***

*Principal, Manchester College of Science and Technology.

Users' Theater

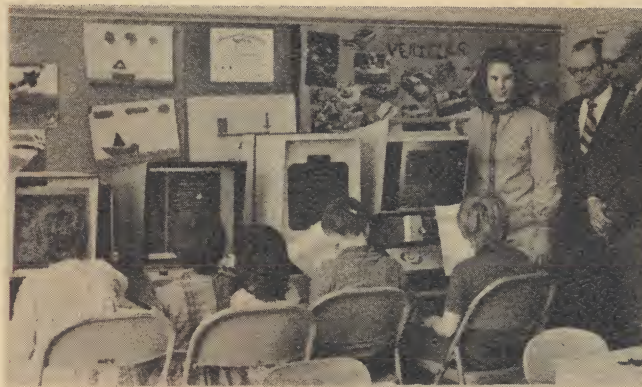
The USER Theater will be a new concept for the NMA Convention. Each day, on a rotation basis, a visual 35mm slide and sound presentation of microfilm user applications, about 15 minutes in length, will be shown for the four days of the convention.

The USER Theater will be open each day with the schedule posted outside the theater. The theater, with a seating capacity of 50 people, will be located in the exhibition hall.

An incentive plan for free dinners for two at three selected Washington area restaurants will be drawn daily from the ticket stubs of those attending the USER Theater.

Users' Forum

(The new Micro-News Bulletin will afford a forum to the user as a regular feature.)



AT BARRINGTON ELEMENTARY SCHOOL, IN EAST BARRINGTON, NEW HAMPSHIRE, the teacher, Catherine Harmon, is demonstrating her experimental program, using microfilm in elementary education, to Dr. Lee G. Burchinal, Assistant Commissioner, National Center for Educational Communications, U. S. Office of Education, and to Newell Pare, Commissioner of Education, State of New Hampshire.

Seven Innovations will be Discussed in Users' Applications Seminar at Convention

The User Applications Seminar at the NMA Convention will offer some unique applications of microforms to serve a variety of uses; these are:

An Experiment in Education, by Miss Catherine B. Harmon will demonstrate a pioneering effort in the use of microforms for teaching at the elementary school level.

Mrs. Elsie A. Denton will describe *The Use of Microforms for an Office Type Information Network at Merck, Sharp & Dohme*. Mr. Stanley D. Stevens of the University of California, Santa Cruz, will describe *Microfilming Maps in Color*.

In the Medical field, Gustav J. Bujkovsky of Consultants Unlimited, will discuss a *Heart and Diabetic Saver System*, and Mr. Robert V. Buchwald, of the Washington Medical Center, will describe *Control and Utilization of Medical Records*.

Representing the Internal Revenue Service, Mr. Gerald C. Benedict and Mr. Thomas L. Buckley will outline *A New Microfilm System in the IRS*. Mr. Lee L. Luenser, of Wisconsin Blue Cross, will speak on *Utilizing the Computer in Microfilming Systems*.

With such varied topics, the Users' Applications Seminar should offer new and stimulating ideas for all. The chairman of the seminars is James E. Crow, E. I. du Pont de Nemours & Co., Inc.

Newcomers' Page

(In the past two years, the membership of NMA has nearly doubled. To accommodate the many newcomers, the new Micro-News Bulletin will run this page as a bimonthly feature.)

Of the 26 Convention Seminars, 6 are for the Newcomer

The following tutorials were planned by the Program Committee specifically for newcomers to microfilm technology.

TUESDAY, MAY 25

9:45 A.M. — 11:00 A.M.

Basic Microfilm Technology

CHAIRMAN: Richard W. Batchelder
Berkey Graphic Microfilm Corp.

SUMMARY:

This tutorial session focuses on the basic elements of microphotography, including rotary cameras, planetary cameras, film processors, quality control, microformats, COM and reader-printers. It has been designed for those who need a quick introduction to the microimage field.

WEDNESDAY, MAY 26

9:00 A.M. — 11:00 A.M.

Production Update in Film Processing, Copying, Inspection, and Quality Control

CHAIRMAN: Milton Schreiber,
Eastman Kodak Company

SPEAKERS: Maynard Short,
Information Handling Services, Inc.;
William Suydam, Bell Telephone
Laboratories; and Steven R.
Mikkelsen, Micro-Data Div., Bell
& Howell Corp.

SUMMARY:

This seminar has been planned to provide basic information to those members who have not had extensive exposure to film process systems. There will be a review of the chemistry currently employed in film processing; a discussion of the three main duplicating systems (silver, diazo, and vesicular); and presentations on quality control and standards.

WEDNESDAY, MAY 26

1:30 P.M. — 2:30 P.M.

Equipment Characteristics and Selection Overview

CHAIRMAN: Wynn D. Crew,
Dakota Microfilm Service, Inc.

SPEAKERS: John R. Frahm, 3M
Company; W. S. Suydam, Bell
Telephone Laboratories; Mel Rice,
Data Film; and Sam M. Trippe,
3M Company.

SUMMARY:

This will be a highly condensed presentation on cameras, processors, film and paper copiers, readers, and reader-printers, and computer output microfilm recorders, stressing the highlights of the other seminars on these topics.

THURSDAY, MAY 27

9:30 A.M. — 11:15 A.M.

NMA Standards Summary

CHAIRMAN: Don M. Avedon,
ARCATA Microfilm

SUMMARY:

This seminar will acquaint newcomers and bring others up-to-date on the activities of the NMA Standards Board. The existing programs will be reviewed and plans for the next year will be unveiled.

2:00 A.M. — 3:00 P.M.

Equipment Update

CHAIRMAN: Rodd S. Exelbert,
Information and Records
Management

SUMMARY:

This one-hour slide presentation will cover microform products including: cameras, processors, duplicators, readers, reader-printers, microfiche systems, housing equipment for microfilm formats, automated and semi-automated retrieval systems, COM recorders and accessories.

2:00 P.M. — 3:00 P.M.

ABC's of COM

CHAIRMAN: Alfred L. Clarke,
Stromberg-Datagraphix, Inc.

SUMMARY:

This tutorial will cover five major areas of COM technology: (1) CONSTRUCTION — The available types of data display and character generation techniques, graphics, stored program systems and operator set-up, and controls; (2) UTILIZATION — The alternatives of on-line or off-line and operational responsibilities for data recording; (3) OUTPUT — Film formats, retrieval codes, image size and unique COM capabilities for data recording; (4) INPUT — Interface digital codes and software for both on- and off-line equipment; and (5) THROUGHPUT — Rated speeds and functional timing of COM in order to clarify methods of determining expected system throughput.

Calendar

The joint NMA/Advanced Management Research Seminars for the spring and summer of 1971 are scheduled in the following cities:

"Developing Effective Microfilm Information Systems"

- San Francisco, May 10-12, at The St. Francis.
- New York, June 14-16, at The Roosevelt Hotel.
- Chicago, July 26-28, at The Conrad Hilton.

"COM: Computer Output Microfilm"

- San Francisco, May 12-13, at The St. Francis.
- New York, June 16-17, at The Roosevelt Hotel.
- Chicago, July 28-29, at The Conrad Hilton.

For further information, please contact, Advanced Management Research, 280 Park Avenue, New York, New York 10017. (212-697-3700).

(Continued from Page 1)

(3) If microforms are introduced, GPO must still operate at a profit.

The members of the Micropublishing Advisory Group, who were introduced by Mr. Spence, are:

Dr. Lee Burchinal — Office of Education

Mr. George Bernstein — Office of Science & Technology

Mr. Peter Urbach — National Technical Information Service

Mr. James Coulter — National Security Agency

Mr. Walter Christensen — Department of Defense

Mr. Forrest Carhart, Jr. — American Library Assoc.

Mr. Charles LaHood — Library of Congress

Dr. Vernon Tate — National Microfilm Association

Mr. Harmon said that the satisfactory end use of the GPO system will be the most important element in the system.

As the ALA Representative, Mr. Robert Sullivan made these points:

1. The ALA sees a need for bibliographic control of GPO microforms "Indexes and bibliographies" he said, "should accompany the microfilm".

2. GPO should also emphasize the quality of the product.

3. There is a need for additional standards.

4. ALA is optimistic that the plans formulated by GPO will benefit libraries everywhere.

Micropublishing Study

Yerkes-Wolf Associates is preparing a market study of commercial, non-profit and proprietary micropublishing (MP 71-80) which will be completed in June. The price for the study after May 1 is \$2,200. This fee includes a one-day review visit by a Principal Consultant of YWA.

NMA Establishes Committee to Study Reduction Ratios

A high-level ad hoc technical group has been named by Don M. Avedon, Chairman of the NMA Standards Board, to study reduction ratio standards.

The committee will look at reduction ratios as related to all microforms and applications, including problems related to rotary, planetary, and step-and-repeat cameras; COM recorders; readers; printers; and film emulsions, and many other aspects of micrographics.

The member of the Reduction Ratio Standards Committee are, in addition to Mr. Avedon of ARCATA Microfilm; Thomas C. Bagg, National Bureau of Standards; Lawrence A. Brunell, Eastmak Kodak Co.; William R. Hawken, William R. Hawken Associates; Klaus W. Otten, NCR; and Joseph W. Sheppard, 3M Company.

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SYSTEM
M



Washington

... on Standards, Methods and Diffusion of Microforms

*(Excerpts from remarks
delivered by George B.
Bernstein at Second
GPO Micropublishing
Conference on April 28.)*

"Investigations of the Working Group clearly indicate that the micromedia field is experiencing serious standardization problems. These problems include: (1) a confusing proliferation of microforms and microform equipment; (2) wide acceptance of microforms for specific applications prior to the adoption of formal standards; and (3) confusion among users, delaying acceptance of many microform products. An orderly and rational microform system implemented by GPO might go far toward bringing order out of the existing chaos.

"... One potential strategy is to standardize the format of the material in such terms as character size and spacing to insure quality images. Obviously, GPO intends that its micropublishing system produce very legible output. Considering the fonts currently used in GPO documents, higher than modest reduction ratios can only be achieved through the use of multi-step techniques. The clearing-houses can attest from experience that legibility is impossible to achieve with poor quality original documents. Let us remember that in order to make the engineering drawing system successful, standards for the preparation of originals had to be written and enforced. These standards include character height and form, line width and contrast.

"The usefulness of any information store is directly related to its accessibility. Dr. McCarthy, of the Association of Research Libraries, clearly stated this point at the February meeting. We concur with the importance he ascribes to it.

"The 1050 depository libraries already must deal with a wide variety of readers. In some cases, they may have as many as ten different types of readers to handle the proliferation of microform documentation systems.

The addition of still another sophisticated reader system could only further complicate their problems. To receive a free reader is one thing; to maintain it, along with many other incompatible readers, in usable condition, is quite another.

Beyond this lies the broader problem of fully exploiting the potentials of the microform as an inexpensive means for information transfer. To achieve this, we must think in terms of the 28,000 additional libraries — and basically, we must think in terms of the individual user. If the individual is truly to be able to use the on-demand microform copies I alluded to earlier, then he must have available for his use a reader which he will find convenient to use. To be convenient, it must be sufficiently low in cost that he can easily afford it (about \$30)*; easy to use (i.e., not like the contraptions we work with today); rugged enough to stand abusive use; comfortable to read; and portable. Industry cannot provide a viewer meeting all of these requirements at low cost unless a mass market is made available. Standardization of a family of reduction ratios and formats among the producers of microforms is a critical step toward consolidation of existing splintered markets for different types of microform equipment...."

*Low Cost Reader Rationale

The strategy of achieving a low-cost reader by setting a price goal and paring down current reader technology to meet it has yielded nothing more than cheap versions of what we started with. To succeed in interesting the general public in the use of micro-media as a personal medium of information interchange, the industry must first offer a reader with the convenience features referred to in the body of these remarks.

Industry will have to permute several improvements in optics and light source design plus engage in much human engineering and packaging research before such a convenient reader can be produced.

Perhaps even a total technological revolution must occur. This is likely to take several years and will probably result in useful readers marketed on a unit basis in the \$80 to \$100 range, on a mass basis, the \$30 unit cost

could be approached. Mass acceptance can only come through progress on all fronts in micro-media:

- (1) Generation, production, and dissemination of high-quality low-cost microform publications;
- (2) Education and orientation of the user to the advantages of microform publications; and
- (3) Availability of the user-oriented reader.

— George Bernstein

COM

Eastern Regional UAIDE Meeting Featured Business, Scientific, and Computer Animation Sessions

There were 110 registrants representing 36 organizations at the Eastern Region UAIDE Meeting held at the Sheraton-Park Hotel in Washington, D. C. on April 20 and 21.

The technical sessions held are listed below:

I. SCIENTIFIC SESSIONS

Chairman: George Lerch, National Security Agency.

Highlights of this program included a thorough discussion by Don Avedon (ARCATA Microfilm) of the latest COM standards, prepared by his NMA Board; a well organized seminar in Advances of Copy Film Technology by Thomas Bagg (National Bureau of Standards); and an overview of the COM industry by Roy Saltzman (A.D. Little, Inc.).

TUESDAY, 20 April

Advances in Film Technology
Thomas Bagg, National Bureau of Standards.

Computer Graphics Output: An Overview of Equipment, Methods and Markets
Roy Saltzman, A. D. Little, Inc.

CalComp Simulator
Jerry Teudt, DatagraphiX

Animated Graphics Presentation of Geophysical Data
Robert Thies, NASA

Graphical Representation of 3-Dimensional Data on the SD-4020/SD-4060
Larry Tarbell, Department of Defense

WEDNESDAY, 21 April

Hardware Workshop
Don Kennedy, (NASA),
George Lerch, (Dept. of Defense),
Paul Ressler, (DatagraphiX)

Autotype
Jerry Teudt, DatagraphiX
COM Microfilm Standards
Don M. Avedon,
ARCATA Microfilm

Computer Output Microfilm: Accomplishment, Deficiency, Frustration
Connis O. Brown, State of Maryland

Software Workshop
George Fleming, (NASA),
Kenneth Rodey, (Dept. of Defense),
George White, (DatagraphiX)

II. BUSINESS SESSIONS

Chairman: John Ferber, Department of Health, Education and Welfare

Highlights of the business sessions included a paper on improving COM quality control by Alan E. Smith (U. S. Atomic Energy Commission); a tutorial on business graphics; and the introduction of a new technique to provide in-phase documentation of system software by Thomas Doran (U. S. Army Materiel Command).

TUESDAY, 20 April

COM Quality Control
Allen E. Smith, U. S. Atomic Energy Commission

"COM" Means E-FICHE-IENCY
Robert Hartley, Carolina Power and Light Co.

Business Graphics Software
Jay Freeman, U. S. Army Logistics Management Center, Fort Lee, Virginia

Panel Discussion: Retrieval Equipment
Chairman: Harry Wade (Social Security Administration), Gary Clickard, (Ford Motor Company), Robert Hartley (Carolina Power and Light Co.), Duane Wiedman (Dept. Health, Education and Welfare).

WEDNESDAY, 21 April

Whoever Heard of Setting Type and Printing Business Reports on a Scientific Microfilm Plotter?
Data-Graphics has!
Jerry Teudt, DatagraphiX

Indexing Techniques
Mark Woods, DatagraphiX

Automated Techniques for Computer Program Documentation
Thomas G. Doran, Army Materiel Command

Luncheon
Guest Speaker: Dr. Ronald Uhlig, Chief Scientific & Management Information Division, Headquarters Army Materiel Command

COM: Operations and Distribution Control
John Morrin, Insurance Company of North America

Panel on "COM" Software
Eugene Scullion (DatagraphiX), Jay Freeman (Army Logistics Management Center), John Ferber (Dept. Health, Education & Welfare), Roger Nagel (University of Maryland), Mark Woods (DatagraphiX).

III. COMPUTER ANIMATION SESSIONS

Chairman: Roger Nagel, University of Maryland

Methodology was the central theme. Highlights included a presentation on 3D simulation in color for training films on flight simulation by Rod Rougelot (General Electric Co.); a comparison of various computer animation language capabilities by S. E. Anderson (Applied Physics Laboratory, The Johns Hopkins University); ways of transforming curves from one drawing to another using linear interpolation techniques to produce continuous cartoon animation by F. Gracer, (IBM).

TUESDAY, 20 April

Workshop 3-D Graphics,
Arthur Appel, IBM, Thomas Watson Research Center

Video Methods
Rod Rougelot, General Electric Co.
Hardware for Interactive Graphics,
Robert Sproul, National Institute of Health

Animation Language Comparisons,
S. E. Anderson, The Johns Hopkins University, Applied Physics Laboratory
Key Frame Animation Techniques
F. Gracer, IBM, Thomas Watson Research Center
Map and Chart Making
Jim Lueje, IBM, Federal Systems Div.

WEDNESDAY, 21 April

Panel Discussion and Workshop: Experiences with Interactive Systems
Moderator: Ron Baecker, University of Maryland
Speaker: Doug Reece, "A Motion Graphics Language"
Speakers: Don Bini, Charlie Brown, Jack Davisson, Carolyn Dutky Romano, Dan Wolf, University of Maryland "The Design of GENESYS 1.mm"
Comment: Eric Martin (Carpenter Center for the Visual Arts, Harvard University).

NMA Exhibit Opening May 20 at Smithsonian Institution

A young Congressman named Richard Nixon helped put microfilm on the front page of virtually every newspaper of the country two decades ago when his investigation of Alger Hiss brought to light some of the film hidden in a pumpkin.

In subsequent years James Bond, "Mission Impossible" and other make-believe tales of international intrigue have kept a globally-conscious public aware of the art of photographic miniaturization.

But microfilm was around long before the microdot generation, and that's the subject of a fascinating exhibit opening May 20th at the Smithsonian Institution in Washington, D. C.

The grand opening of the exhibit will be on the evening of the 20th of May, with official ceremonies and a cocktail party at the location of the exhibit. At the opening ceremonies, NMA officials will affix a plaque to the outside wall of the exhibit to mark their contribution.

The Smithsonian's Curator of Photography, Mr. Eugene Ostroff, and his Assistant Curator, Mr. Dave Haberstick, have provided technical and artistic advice, as well as the space in the museum.

The NMA has donated \$10,000 in funds to cover the execution of the exhibit, plus in-kind services from various

member-affiliated companies. The Exhibit Committee is composed of the Chairman, George Bernstein — Department of the Navy, Giles Wilkinson — Eastman Kodak Co., Richard Moss — 3M Company, George Lerch — National Security Agency, John Sheffield — Social Security Administration, and Dr. Vernon Tate.

Neele Barner, Chairman of the NMA Public Relations Committee, originated the idea of having an exhibit in the Smithsonian. The Storyboard Subcommittee is comprised of Thomas Berney — Bell & Howell Co., Richard Shonk — National Microfilm Systems, Inc., and Neil McEachren — Eastman Kodak Co. Special credit goes to the Contributions Coordinators, Bill Anderson of Eastman Kodak, and Bill McGlone of 3M Company.

Contributions of equipment and material to be used in the exhibits was necessarily limited, due to space and time limitations. The contributors are: Bell & Howell Co., Cooper Trent Division of Keuffel & Esser Co., Xerox Corp., Eastman Kodak Co., Itek Business Products, 3M Co., NCR, and the U. S. Patent Office.

There have been numerous other offers of assistance and, as of this writing, contributions are still being solicited and will be acknowledged at a later date.



The late John P. Eager

(NMA Establishes J. P. Eager Fund — Continued from Page 1)

Product Planning, BSM, when he retired in 1967, the fund is the first of its kind related to the micrographics field. The initial award will be made to a student at the Rochester Institute of Technology. Additional grants to other qualified colleges and universities are planned.

George Harmon stated, "The microfilm industry, growing at an ever increasing rate needs more and more trained professionals. This training can best be provided by our colleges and universities. The establishment of the John P. Eager Educational Fund and its Scholarship Program will encourage capable individuals to pursue occupation in microphotography. The introduction of course material into a school such as Rochester Institute of Technology makes available the opportunity for students to obtain the knowledge and skills needed in the industry. We look forward to the expansion of both, the number of scholarships supported by members of the National Microfilm Association and the number of schools offering courses in microphotography."

Commenting on the scholarship, Phillips said, "Mr. Eager was so impressed with the potential of microphotography in the late 1930s that he determined to devote his future to its improvement and acceptance. He envisioned the use of microfilm as a fundamental technique to permit students the world over to avail themselves of and enjoy greater participation with the written treasures of the world via film.

"It is still a challenge worthy of handing down to the students of today to improve the techniques for the use of students tomorrow. It is thought that this scholarship award may assist in attracting students to the further study of microphotography and its great potential for the future."



Smithsonian Institution, National Museum of History and Technology, is located at 14th and Constitution Ave. Over 850,000 people visit this building during the peak summer months.

Proposed Revision of ANSI Standard on Drafting Practices

The American National Standard Subcommittee Y14/19, chaired by Mr. R. E. Thieme of Bell Telephone Laboratories, has been studying drafting standards related to Engineering Drawings for Photographic Reproduction. The recommendations of this subcommittee have been incorporated in a draft of American National Standard Y14.2, Section 2, covering Drafting Practices for Line Conventions and Lettering. This proposed standard has been revised specifically to reflect the needs of micrographic systems as is stated in the proposed standards Foreword which follows:

"This standards has been revised to reflect current industrial practices in the preparation and handling of engineering documents. The increased use of reduced size copies of engineering drawings made from microfilm and the reading of microfilm requires the proper preparation of the original engineering document.

"All engineering drawings should be prepared suitable for eventual photographic reduction of reproduction.

"The observance of the drafting practices in this standard will contribute substantially to the improved quality of photographically reproduced engineering drawings."

The NMA Standards Board has arranged to make copies of this proposed standard available to NMA members for review and comment. We must emphasize that this is a draft and not an approved standard.

Copies may be ordered from NMA Headquarters (Suite 1101, 8728 Colesville Road, Silver Spring, Maryland 20910); enclose \$2.00 per copy to cover costs of reproduction and mailing. Only orders accompanied by remittance can be filled.

MICOM Specifications

As a result of comments from NMA and others, the U. S. Army Missile Command has prepared another *draft* specification dated March 1971, for the Department of Defense. This specification (MIL-M-46849) is entitled "Military Specification Microfilming of Engineering and Related Documents, 16mm, Requirements For", and is now being circulated for industry and government coordination. A few free copies of this draft document are available by writing to Don M. Avedon, Chairman, Standards Board, National Microfilm Association, Suite 1101, 8728 Colesville Road, Silver Spring, Maryland 20910.

Tenth UAIDE Annual Meeting

Abstracts for papers for the 10th UAIDE Meeting (Biltmore Hotel, Los Angeles — October 29) may be submitted up to May 26. (Send abstracts to Gina Robinson, UAIDE, P. O. Box 2449, San Diego, California 92112.)

Positions Open

A leading micropublisher has two openings: one for a Manager/Supervisor of the Microfiche Department and the other for a Manager/Supervisor of the Camera Department.

If you are qualified, send your resume to Positions Open, National Microfilm Association, Suite 1101, 8728 Colesville Road, Silver Spring, Maryland 20910.

Conference

"Microfilm — Search for an Image", a conference and separate report from Quantum Science Corporation, will analyze and forecast markets, technologies and investor opportunities in the microfilm and related industries through 1975. The conference will be held Friday, June 11, 1971, at the Americana Hotel in New York City. Contact: Frank Fernety (201) 652-7200.



PART OF THE PLANNED ENTERTAINMENT for the NMA Convention, "Infographics Update", will be the Collegiate Singers under the direction of Dr. Albert P. Stewart of Purdue University. This spirited group of 22 young men will perform at the Banquet on Wednesday evening.

Not everyone needs 420,000 pages of information in a desk drawer.

But then, not everyone is John Thompson who runs Detroit's Bank of the Commonwealth, with its 57 offices.

"When you run a retail bank — and the Bank of the Commonwealth is one of the top 50, with more than 375,000 CDs and passbook accounts, and 125,000 checking accounts — you make it by moving the customer in and out. Quickly. So it is only a 10- or 20-dollar transaction. But to the customer it's the most important transaction in the world.

"What happened when a customer had a problem with his checking account before we had all our high-volume portfolios on daily COM-generated microfiche? The customer had to wait while volumes and volumes of paper were searched to locate the problem.

"But now? The clerk has up to six months of account information at her fingertips. And the customer leaves with the warm feeling that we care.

"Sure it's great to improve your service. And cut down on storage space and historical look-up time. But we also had to justify Datagraphix Computer-Output-Microfilm on a pure cost-displacement basis. Which we've done. Covering all of our volume portfolios — demand deposits, savings, CDs, mortgages, installment loans. Even MGM and control reports.

"And now, just about anybody in the bank, without special training, can get quick access to just about any information they need. Out of a desk drawer."

If you're a top man in a company with a special need for retrieving a lot of information quickly and at substantial cost savings, call (714) 283-1038 and discuss your problem with Kent Roswell. Or TWX (910) 335-2058. Or you can write Kent at Box 2449, San Diego, California 92112. Stromberg Datagraphix Inc. ☐ a General Dynamics subsidiary.



Datagraphix

Publication Notes

Costigan, Daniel M.

FAX: *Principles and Practice of Facsimile Communications*, Chilton Book Company, Philadelphia, Pa., (to be published in early fall 1971).

THE MICROFILM TECHNOLOGY PRIMER ON SCHOLARLY JOURNALS. Princeton Microfilm Corp., New Jersey, Library Service Division, September 1969.

This primer is intended to acquaint public, academic and special librarians with the current state-of-the-art in microform technology. Brief discussion is given of the advantages and disadvantages, economics, reading and printing capabilities, continuous and unitized microforms and the various analogies of microfilm technology to other technology. Suggestions for keeping current are included. (AB)

Project Intrex. Semiannual Activity Report, 15 March 1970 to 15 September 1970. Massachusetts Institute of Technology. Cambridge, 15 September 1970. 107 p. ED 043 348. Prices: MF-\$0.65; HC-\$6.58.*

User experiments are the main theme of this tenth issue in the series of Project Intrex semiannual activity reports. This system is undergoing tests with users who are motivated by their need for information rather than an interest in the machinery by which it is stored, retrieved

*ERIC Document Reproduction Service, P. O. Drawer O, Bethesda, Maryland 20014.

and presented. Test results will indicate which fields in the augmented catalog are most helpful to the user, which of the retrieval program features are most effective and which display techniques are most congenial in continued use. This kind of information will make it possible to design the future information systems in which libraries and information centers will utilize the new computer-communications technology. The seven major sections of the report are: (1) introduction, (2) research and development activities, (3) model library, (4) Project Intrex staff, (5) current publications, (6) past publications - 1969-1970 and (7) past publications - 1966-1969. The research and development activities section covers: (1) status of the program, (2) user experiments, (3) augmented-catalog inputting, (4) storage and retrieval, (5) display consoles and (6) full-text storage and retrieval.

DOD Study

The Department of Defense has issued a report entitled *Microfiche Storage and Retrieval System Study*, a report of a six-month study to determine user requirements and to develop design objectives and specifications concerning such systems for small libraries and research activities. Order document AD-710-000 from National Technical Information Service (NTIS), U. S. Department of Commerce, Springfield, Va. 22151. Price is \$3.00 for hard copy, \$0.65 for microfiche copy.

International

Dr. Tate's Report on Reprographic Congress

Dr. Vernon D. Tate, NMA Executive Secretary and Archivist, attended the IIIrd Reprographic Congress in London, representing the NMA.

Dr. Tate reports that, "Equipment shown came from Germany, France and Holland as well as the United States. The U. S. exhibits were prominent in the show. The greatest emphasis seemed to be on engineering drawing applications. Security and library-archival uses are well established and there were signs everywhere that the systems aspect has been accepted. There were no COM machines as such shown but the subject was much discussed. A 16mm motion picture of the KOM 90 was shown by Kodak, Ltd. and there were various pieces of gear with potential COM applications on the floor. Interestingly enough, micropublishing was mentioned and some applications were demonstrated but the 'state-of-the-art' appears to be far behind U. S. concepts and practice. I did not see any evidence of educational uses, and heard little reference to copyright and legality; standards, however, were of universal concern."

There were about 20 Americans present and several read papers or participated in the program in various ways. Among them were Dr. Carl E. Nelson (IMC), A. H. Leisinger (National Archives), W. C. Myers (Consultant), Ernest Taubes (Consultant), Charles LaHood (Library of Congress), Carl Spaulding (Council on Library Resources), P. A. Knatchel (Folger Library), M. M. Shashin (Xerox Corp.), R. M. Dolmski (Dow Chemical), and Felix H. Brown (Owens-Illinois).



DANIEL WEBSTER PAPERS MICROFILMED - Dr. Robert W. Haigh, President of Xerox Corporation's Education Group (left), and Dr. John J. Kemeny, President of Dartmouth College, examine the first reel of a microfilmed edition of Daniel Webster papers at a New York ceremony held to mark publication of the papers. Dartmouth and University Microfilms, a unit of the Xerox Education Group, carried out the project. Webster was a member of the Dartmouth class of 1801. This comprehensive edition of the Webster papers is available in 41 reels of microfilm (University Microfilms, 300 North Zeeb Road, Ann Arbor, Michigan 48106).

Micro-News Bulletin

Published by

THE NATIONAL MICROFILM ASSOCIATION

Suite 1101, 8728 Colesville Road • Silver Spring, Maryland 20910

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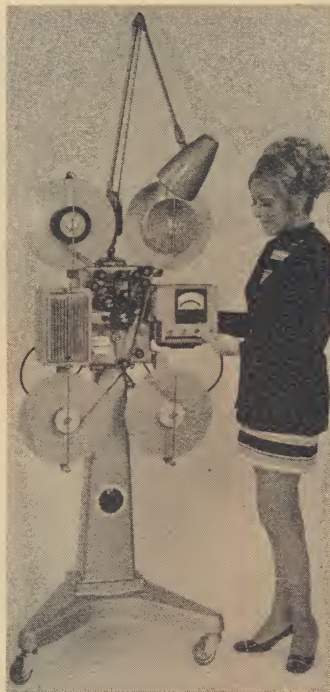
Automatic Retrieval System
(Access Corporation —
4632 Paddock Road,
Cincinnati, Ohio 45229)

Access Corporation will unveil its new System M for automatic mass document control at the NMA Convention. A single unit System M automatically retrieves one or many randomly stored documents from a Mass Module of 120,000 to 160,000, with a maximum three-second delivery after keyboard entry. Two Mass Modules operated from a single keyboard double the capacity to 320,000 documents or many millions of units utilizing microfilm media.



Kalvar Loop Accessory
(Kalvar Corp. —
907 South Broad Street,
New Orleans, Louisiana 70125)

The company recently announced that its Continuous Master Loop Duplicator is now ready for delivery. This product further reduces the time required to duplicate masters on Kalvar® vesicular film. When attached to any Kalvar printer/processor, this accessory will eliminate the need for rewinding masters in making multiple duplications: as the name indicates, the accessory feeds the master through the duplicator in a continuous loop; Rethreading time saved increases machine output by 36%. Masters may be as long as 350 feet and as short as 12 feet (SD 92) or 20 feet (SD 94 and 96). Longer lengths can be accommodated by special order. The accessory is compatible with duplicating speeds of up to 185 feet per minute.



Microfilm Duplicator
(Bell & Howell —
Professional Equipment Division,
7100 McCormick Road,
Chicago, Illinois 60645)

An improved microfilm contact printer that duplicates 35mm and 16mm silver halide film. Designated the Model 6760AR Filmoprinter, it prints at 94 ft. per minute and can handle up to 1,200 ft. rolls of perforated or unperforated film. It is sprocketless, with an all-ball-bearing and helical gear drive system, which assures steady and quiet operation. Frame-to-frame steadiness allows use of edge numbering for reference and retrieval.



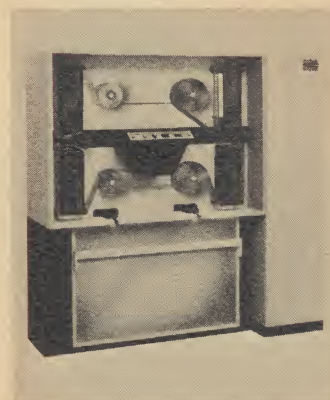
New Film
(U. S. Microfilm Sales Corp.
235 Montgomery Street,
San Francisco, California 94103)

New Fuji type HR anti-halo undercoated microfilm is available in 16mm, 35mm, and 105mm widths. Sharpness and definition of the new type HR are described as equal to the highest prevailing resolution requirements.



Cathode Ray Tube
(Litton Industries —
Electron Tube Division
960 Industrial Road,
San Carlos, California 94070)

A cathode ray tube specifically designed for recording computer output on microfilm is designated the L-4251. This CRT typically features a 1 mil spot size at a low deflection of 26°, as compared to the 40° angle normally found with this type of tube. Use of a low deflection angle minimizes the requirement for linearity and focus correction and permits faster writing speeds.



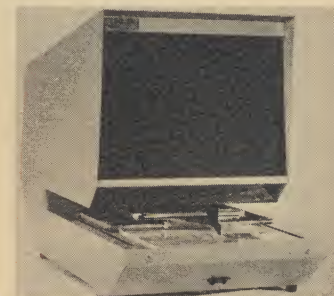
Two New Microfilm Duplicators
(Extek Microsystems, Inc. —
15424 Cabrito Road,
Van Nuys, California 91406)

Two new Extek microfilm duplicators are now available. The XD-I is a diazo film duplicator, and the XT-I is a thermal film duplicator. Both models are designed to handle all common sizes of microfilm from 16mm through 105mm. The XT-I is the first thermal film duplicator capable of duplicating 16mm, 35mm and 105mm film.



Automatic Image Locator
(Information Design, Inc. —
3247 Middlefield Road,
Menlo Park, California 94025)

This new device enables users of microfilm to rapidly locate a desired image on a roll or cartridge of microfilm. The first application of the new system is an accessory for use with the Xerox Microprinter. The system is also adaptable to a variety of microfilm readers and reader-printers.



Model COM 150
Microfiche Reader
(Micro Design, Inc. —
235 South Johnson Street,
Hartford, Wisconsin 53027)

An all new desk top microfiche reader featuring a choice of four standard magnifications 18X, 24X, 32X or 40X. Any variation of magnification between 18X and 40X is available upon special request. Designed to read computer output microfilm in a 3/4 size format, the COM 150 comes with a choice of 4 x 6 inch, 4 x 7-3/8 or 4 x 12 inch carriages. Screen size is 11-1/2 x 8-1/2 inches and screen color is optional in either a gray, green or blue non glare.



Fiche or Aperture Card File
(Boorum & Pease —
74 Hudson Avenue
Brooklyn, New York)

White index panels for negative film and black index panels for heat-developed film are available for storage and retrieval of valuable records on microfiche and aperture cards. The Viz-A-Fiche® system index panels in white are of specially treated acid free paper to insure the safety and long life of film negatives or positives.

Are you ready for Kodak's InstamaticTM microfilm system? Drop in.

We have an exciting new development to show you at the N.M.A. Convention in Washington, D.C., May 25 through 28.

It's a brand-new Kodak Instamatic microfilm system that's going to make a big difference in the entire microfilm picture.

Fact is, there are many new microfilm ideas in this year's show—new equipment and techniques to help you in all phases of business.

So do drop in. Or write, Eastman Kodak Company, Business Systems Markets Division, Dept. DP678, Rochester, N.Y. 14650.

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